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PROJECT COMPLETION REPORT

**KOREA - FOURTH EDUCATION PROJECT
(LOAN 1474-KO)**

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Projects Department
East Asia and Pacific Regional Office

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GLOSSARY

CVTI	-	Central Vocational Training Institute
GAT	-	German Advisory Team
KDI	-	Korea Development Institute
KVTMA	-	Korean Vocational Training Management Agency
MOE	-	Ministry of Education
MOL	-	Ministry of Labor
MOST	-	Ministry of Science and Technology
OLA	-	Office of Labor Affairs
OSROK	-	Office of Supply of the Republic of Korea
RVTC	-	Rural Vocational Training Center
VTI	-	Vocational Training Institute
VTB	-	Vocational Training Bureau

KOREA
FOURTH EDUCATION PROJECT (LOAN 1474)
PROJECT COMPLETION REPORT

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PROJECT COMPLETION REPORT

KOREA - FOURTH EDUCATION PROJECT
(LOAN 1474-KO)

PREFACE

This is a project completion report (PCR) on the Fourth Education Project in Korea, for which Loan 1474 was approved in July 1977 in the sum of US\$23.0 million. The actual closing date was June 30, 1983. About US\$200,000 was cancelled.

The PCR was prepared by the Korean Ministry of Labor (MOL) and the Korean Vocational Training Management Agency (KVTMA). It is based on: (a) material contained in MOL's project files; and (b) material in the Bank's files, including the Appraisal Report (1432-KO), dated June 17, 1977; the President's Report (P-2114-KO) dated June 21, 1977 and the Loan Agreement, dated July 22, 1977.

The PCR was reviewed and edited to conform to Bank guidelines by staff in the Education Projects Division of the East Asia and Pacific Regional Office who also prepared the highlights.

Following a review of the PCR by OED staff, it was decided not to audit the project and the PCR was sent for comment to the Borrower in November 1984. No comments have been received.

PROJECT COMPLETION REPORT BASIC DATA SHEET

KOREA - FOURTH EDUCATION PROJECT (Loan 1474-KO)

KEY PROJECT DATA

Item	Appraisal Expectation	Actual or Current Estimate
Total Project Cost (US\$ million)	41.4	55.1
Overrun (X) -		33
Loan/Credit amount (US\$ million)	23.0	
Disbursed	23.0	22.79
Cancelled		0.21
Repaid to) December 31, 1984		6.79
Outstanding to)		16.00
Date Physical Components Completed	07/80	12/81
Proportion Completed by Above Date (X)	40	100
Proportion of Time Overrun (X)		68
Economic Rate of Return (X)	N/A	N/A
Financial Performance	N/A	N/A
Institutional Performance	Good	Good

OTHER PROJECT DATA

Item	Original Firm	Revisions	Actual or Est. Actual
First Mention in Files or Timetable			03/21/75
Government's Application			05/77
Negotiations			06/06/77
Board Approval			07/03/77
Loan/Credit Agreement Date			07/23/77
Effectiveness Date			10/25/77
Closing Date	06/30/82	06/30/82	06/30/83
Borrower			Republic of Korea
Executing Agency			Ministry of Labor
Fiscal Year of Borrower			January to December
Follow-on Project Name			Higher Technical Educ. (Sector Loan)
Loan/Credit Number			1800-KO
Amount (US\$ million)			100.0
Loan/Credit Agreement Date			02/21/80

MISSION DATA

Item	Sent by	Month, Year	No. of Weeks	No. of Persons /a	Man-weeks /b	Date of Report
Identification	Bank	05/76	4.0	4(2B,2C)	16.0	06/22/76
Reconnaissance	Bank	08/76	1.0	1 (B)	0.1	09/16/76
Appraisal	Bank	09/76	3.0	3(A,B,C)	9.0	11/02/76
Postappraisal	Bank	02/77	0.2	2 (A,C)	0.2	03/01/77
Total			8.2		25.3	
Supervision I	Bank	03/78	1.6	2 (A)	0.6	04/25/78
Supervision II	Bank	04/78	3.0	2 (A,C)	0.6	06/02/78
Supervision III	Bank	10/78	3.5	1 (C)	0.3	12/21/78
Supervision IV	Bank	04/79	3.6	1 (C)	0.3	05/25/79
Supervision V	Bank	11/79	0.4	1 (A)	0.3	12/17/79
Supervision VI	Bank	03/80	2.3	1 (C)	0.3	05/12/80
Supervision VII	Bank	05/81	4.2	1 (B)	0.3	06/23/81
Supervision VIII	Bank	11/82	3.0	2 (A,B)	0.6	12/15/81
Supervision IX	Bank	06/82	1.3	2 (A,B)	0.2	08/03/82
Supervision X	Bank	11/82	1.2	2 (B,C)	0.6	12/03/82
Supervision XI	Bank	02/83	0.6	2 (B,C)	0.2	07/18/83
Completion						/ /
Total			24.7		4.3	

COMPARISON OF ESTIMATED AND ACTUAL DISBURSEMENTS

CY	1977	1978	1979	1980	1981	1982	1983
Appraisal Estimate	-	1.3	6.5	17.5	23.0	23.0	23.0
Actual	-	-	6.8	16.2	18.6	22.4	22.8
Actual as % of Appraisal	-	-	105	93	81	97	99

ALLOCATION OF LOAN PROCEEDS (US\$)

Description	Original allocation	Revisions (06/24/80)	Actual disbursements
Civil Works (incl. professional fees and furniture)	3,900,000	3,500,000	3,200,000
Instructional Equipment	13,900,000	19,500,000	19,600,000
Technical Assistance	300,000	-	-
Unallocated	4,900,000	-	-
Total	23,000,000	23,000,000	22,800,000

COUNTRY EXCHANGE RATES

Name of Currency (abbreviation)	Korea won	(Won)
Year:		
Appraisal Year Average	484	Exchange Rate: US\$1 = 484
Intervening Years Average	638	US\$1 = 638
Completion Year	793	US\$1 = 793

/a Number of staff weeks attributable to the project.

/b A = Architect; B = Economist; C = Technical Educator.

KOREA

FOURTH EDUCATION PROJECT (LOAN 1474)

PROJECT COMPLETION REPORT

Highlights

A loan of US\$23.0 million was approved in July 1977 to expand the capacity of the Government's system of Vocational Training Institutes (VTIs). This system already numbered 16 institutions, including 7 assisted under the Bank's Third Education Project. The Fourth Education Project was designed to complete the expansion plan to 24 in all, 8 new institutions, and to strengthen the programs for instructor training of the Central Vocational Training Institute (CVTI). The project comprised construction and equipment for eight VTIs and equipment for the Central Vocational Training Institute (CVTI).

As with the Third Education Project, that was successfully implemented and judged an excellent example of Bank/Borrower cooperation, as reported in the Operations Evaluation Department's Project Performance Audit Report of June 13, 1983, the Fourth Education Project also fully realized its objectives. The project completion report identifies no issues that significantly affected project performance. There was some delay in project implementation, caused by late completion of civil works, and subsequent delay in tendering and delivery of equipment, and the final disbursement was made in March 1984, while the original Closing Date was June 30, 1982. In addition, there was an overall cost overrun of 33% mainly due to modest increase of building areas and unexpected and unprecedented high rates of inflation in both foreign and domestic prices caused by the second OPEC crisis.

The rationale for the project was based principally on manpower surveys that indicated an emerging shortage of manpower at the sub-professional level. To increase the supply of semi-skilled and skilled manpower in accordance with estimates of future demand in the labor market, the project set ambitious targets in terms of enrollment and output (paras. 2.16 and 2.18). These targets were reached with only about 13% of trainees failing to complete the training courses (para. 6.03). Evening courses were developed to improve utilization and increased output by an additional 35%. Follow-up studies of graduates indicate very high levels of utilization of graduates in their respective skill areas.

The project originally provided boarding facilities for 50% of the students in the VTIs. During implementation the Government decided to provide 100% boarding facilities (para. 3.07(e)). There were two reasons. Students had come from distant cities and towns and boarding space in neighboring communities was limited. Also MOL decided to intensify the training by maintaining supervision of students in the evening and providing counselling and guidance services.

The Bank's accredited representatives visited Korea on 11 supervision missions to ascertain the project progress. They generally expressed satisfaction with project accomplishments. The Korean Government was also satisfied with the advice and assistance provided by the Bank's visiting missions (paras. 6.06 and 6.07).

Two major institutional developments during the course of the project were the establishment of the Changwon Industrial Master's College (CIMC), for further skill development of workers to the level of master craftsman, and the creation of the Korea Vocational Training Management Agency (KVTMA) for unified management of the growing system of skill training and technical qualification testing (paras. 5.02-5.06).

KOREA

FOURTH EDUCATION PROJECT (LOAN 1474)

PROJECT COMPLETION REPORT

I. INTRODUCTION

1.01 This completion report on the Fourth Education Project in the Republic of Korea was prepared by the Ministry of Labor (MOL) and the Korean Vocational Training Management Agency (KVTMA). The review of this report has been coordinated by Mr. R. Drysdale and rewriting of it to conform to the Bank guidelines has been done by Miss P. Dhillon of the Education Projects Division of the East Asia and Pacific Regional Office.

II. PROJECT BACKGROUND

Socioeconomic Setting

2.01 Since 1960 Korea has progressed from one of the poorest developing countries, with heavy reliance on agriculture, into a semi-industrial middle income nation. In 20 years, per capita income grew four times in real terms. As agriculture's share of GNP fell from over 40% to 18%, the manufacturing sector increased its share from 11% to 34%. Education standards improved significantly, as did housing and public health.

2.02 This remarkable record of economic and social gains is attributable to a variety of factors. Political stability and a strong commitment to development were essential prerequisites for economic progress. Korea's labor force is also highly disciplined, industrious and, as the inheritor of a long tradition of formal education, relatively well educated. Most importantly, sound policies have enabled Korea to surmount obstacles to development such as those presented by the virtual absence of exploitable natural resources.

2.03 Education has contributed to Korean industrialization by emphasizing widespread provision of basic education (primary and general secondary) and vocational training. Full enrollment of the primary school age group was achieved by 1975; over 80% of the corresponding secondary age group is presently in school. Virtually 100% of the labor force is literate and 90% of production workers have completed primary or secondary education. Over the last decade Government has also expanded the number of technical high schools and vocational training institutes, with the result that planned capacity to prepare skilled workers for entry into industry to meet that demand is in place.

Manpower Development

2.04 The accelerated pace of industrial development and the increasing complexity of production processes called for a labor force with a higher

degree of technical competence. This in turn required large-scale efforts in education and training. Long-term projections of demand and supply for technical manpower were used to determine the general direction for investment decisions in technical education and vocational training. These estimates were periodically updated to take into account new survey data and the gradual expansion of relevant training capacities.

2.05 For the category of skilled workers (craftsmen and operatives), the projections indicated that the period 1977-81 would be characterized by sizeable deficits, totaling over 300,000 (Annex 1) or 20% of the 1981 stock. This situation justified a continuation of Government's reliance on a variety of vocational training modes to exploit the potential of the formal and nonformal training systems as well as of inplant training.

2.06 The urgency of the training needs led to a combination of intensive pre-employment vocational training and large-scale upgrading of skilled workers through special short-term courses. This upgrading was to be conducted in the plant to take into account the needs of individual industrial establishments.

2.07 The Government allocated the training targets (in terms of number of trainees) as follows: the formal system (under the Ministry of Education - MOE) was to train 30% and nonformal modes (directly or indirectly under the Office of Labor Affairs - OLA) ^{1/} to train 70%. Of the latter share, 15% was attributed to vocational training institutes, and 55% to inplant training schemes.

2.08 The Korea Development Institute (KDI) attempted to disaggregate demand and supply figures into skilled and semi-skilled workers in order to shed new light on the question of training deficits for industrial workers. For the subcategory of skilled workers, the cumulative deficit for the period 1977-81 amounted to about 20,000 or 2% of the estimated 1981 stock; the shortfall for semi-skilled workers remained substantial at almost 300,000 or 40% of the 1981 stock (Annex 1). Although the assumptions underlying these estimates may have been contested, the results of this exercise implied that the training deficits for skilled workers could have been converted to a situation of approximate balance through further investments in vocational training, whereas the size and diversity of future training tasks at lower skilled level called for training arrangements within the private sector, supported by the Government's system of technical and vocational training.

Project Generation

2.09 The project under consideration here was preceded by a closely related project, the Third Education Project (Loan 1096-KO). It was the first Bank-assisted vocational training project of the Ministry of Labor (MOL). The loan agreement was signed on March 31, 1975 and became effective June 6,

1/ Ministry of Labor (MOL) was known as Office of Labor Affairs (OLA) in its early stages of the Project.

1975. The original closing date of June 30, 1980 was extended by one year to June 30, 1981. The total cost of the project was US\$22.5 million, with MOL's share of US\$11.0 million. The Third Education Project was designed to: (a) meet manpower requirements at the skilled worker and technician levels for specific economic sectors, while improving the quality of instruction of the education system; and (b) lay a sound basis for a flexible, employment oriented system of nonformal vocational training.

2.10 The project items for the Third Education Project were:

(a) Under the Ministry of Education

- (i) Construction of and equipment for 1 new technical high school (grades 10-12);
- (ii) Extension to and equipment for 3 agricultural junior colleges (grades 13-14), 1 fisheries college (grades 13-16) and 3 fisheries high schools (grades 10-12);
- (iii) Equipment for 1 merchant marine junior college (grades 13-14); and
- (iv) Technical assistance for teacher training and preparatory technical studies.

(b) Under the Office of Labor Affairs

- (v) Construction of and equipment for 7 vocational training institutes.

2.11 The 7 Vocational Training Institutes (VTIs) financed under the Third Education Project were located in local industrial centers at Cheongju, Jeonju, Jinju, Suncheon, Gumi, Pohang and Ulsan to meet the manpower demand and an absolute shortage of supply which was projected by Korean economic planners. To satisfy the national policy, a rapid expansion of nonformal education through VTIs was deemed appropriate.

2.12 The Third Education Project was successfully completed as evidenced by the Operations Evaluation Department's Project Performance Audit Report of June 13, 1983. It had met all the appraisal objectives. It was reported that the project outcomes were highly satisfactory and represented an excellent example of Bank/Borrower cooperation.

2.13 In accordance with the aim of the Government's Fourth Five Year Plan (1977-81) to industrialize the country, the Fourth Education Project was a logical follow-up to the Third Education Project. The Fourth Education Project, assisted by the Bank, was designed to increase the number of VTIs from 16, including 7 supported under the Third Education Project, to 24, or 8 additional institutions. It was understood by the Government and the Bank that these 8 additional VTIs would follow the same design, operate under similar management and fulfill the same training objectives as those VTIs financed under the Third Education Project. The Fourth Education Project was

first mentioned on file on March 21, 1975, before the date of effectiveness (June 6, 1975) of the Third Education Project.

2.14 The Bank identification mission visited Korea in May 1976. The mission recommended providing financial assistance for: (a) strengthening the administrative capability of OLA; (b) improvement of the Central Vocational Training Institute (CVTI) for instructor training; (c) establishment of eight VTIs totaling 3,600 places; and (d) technical assistance. The identification mission also assisted with the project preparation. The project was appraised in September 1976, negotiated in June 1977 and approved on July 5, 1977. The project became effective October 25, 1977 and was expected to be completed by December 31, 1981. Closing date was set at June 30, 1982.

Project Objectives

2.15 At appraisal, the project objectives were to:

- (a) contribute to the supply of skilled and semi-skilled workers needed for the country's industrial development;
- (b) provide out-of-school youth with a means to acquire skills that would make them employable in industry;
- (c) strengthen vocational instructor training; and
- (d) give technical assistance to the country's efforts in the field of inplant vocational training.

Project Description

2.16 The project items in the appraisal report were as follows:

Item	Enrollment Capacity			Increase (%)	Additional output per annum
	Existing <u>/a</u>	New	Total		
Eight VTIs <u>/b</u>	6,900	3,600	10,500	53	5,400 <u>/c</u>
Central Vocational Training institutes (CVTI)	660	90	750	14	50

/a 16 VTIs then operating or were being established.

/b Numbers rounded to nearest 100.

/c Assumed 1-1/2 shift operation (regular courses only).

Vocational Training Institutes

2.17 The locations tentatively selected by the Government for the eight new VTIs were Naju, Nonsan, Sasang, Weonju, Chungmu (Geoje), Hongseong, Kimcheon, and Pyeongkaek (Panweol); the first four were planned to be constructed in 1978. The proposed VTIs were to be near areas of high industrial concentration or close to existing or planned national or provincial industrial estates. The locations were reviewed and accepted by the Bank.

Central Vocational Training Institute (CVTI)

2.18 In addition to raising the general quality of instructor training, the investment in the CVTI was designed to permit an expansion of enrollments in the regular two-year course from about 660 to 750 and of the annual output from about 320 to 370 instructors (a 16% increase). During negotiations, the Government informed the Bank that it planned a temporary enrollment increase to 850 as part of its measure to ensure an adequate supply of VTI instructors. The Bank assistance consisted of financing equipment for precision measurement, metal finishing, electrical fitting, machining, sheet metal work and welding. This constituted direct support to the VTIs established under the Third and Fourth Education Projects.

Technical Assistance

2.19 A total of about 24 man-years of specialist services and of 22 man-years of fellowships were provided to support the other project components and to provide specific expertise needed for the large-scale introduction of in-plant vocational training. The technical assistance required within the vocational training system was as follows:

<u>Item</u>	<u>Amount of Assistance</u>
1. VTB (see para 2.21 below)	6 man-years of specialist services
2. CVTI	10-1/4 man-years of specialist services and 2 man-years of fellowships
3. VTIs	8 man-years of specialist services and 20 man-years of fellowships

2.20 The Government expected technical assistance for the Vocational Training Bureau (VTB) of MOL to be financed from the loan. Technical assistance for the CVTI was to be financed under UNDP program; and technical assistance for the VTIs was to be financed through a program of bilateral assistance from the Federal Republic of Germany. With this understanding the loan was to cover only 6 man-years of specialist services for the VTB.

Project Costs and Changes

2.21 The loan amount of US\$23 million as allocated at appraisal and subsequently revised is as follows:

	<u>Appraisal allocation</u>	<u>Revised allocation</u>
	(US\$ million)	
Civil works	3.9	3.5
Equipment	13.9	19.5
Technical assistance	.3	-
Unallocated	4.9	-
<u>Total</u>	<u>23.0</u>	<u>23.0</u>

2.22 In April 1980, the Government requested reallocation of unused funds (US\$4.9 million in category 4 under "Unallocated", US\$0.3 million in category 3 under "Technical Assistance and US\$0.4 million in category 1 under "Civil Works") to Category 2 to meet the additional requirements for instructional equipment and also to compensate for the high rates of inflation during 1978-82. The technical assistance component was reduced to zero as the Federal Republic of Germany was able to approve a larger program of support for specialists services than initially agreed with the Government of Korea (para. 3.14). The equipment allocation was revised upwards to US\$19.5 million in reflection of the high foreign exchange content of equipment procured under the project. Since the civil works cost overruns were essentially caused by local cost inflation, the Government was able to budget adequate funds to cover these local expenditures. Therefore, in order to release additional loan funds for equipment, the Bank was requested to change the category for reimbursement of expenditures for civil works from 25% to 10%, thereby reducing the loan amount allocation of US\$3.9 million to a revised allocation of US\$3.5 million. The changes were caused by adjustments in relative prices and in no way reflected deviation from original project objectives. Indeed, the Government's ability to increase the level of expenditure on civil works signalled strong commitment to the original project and its objective. At closing, the unspent balance of US\$0.2 million was cancelled.

III. PROJECT IMPLEMENTATION AND MANAGEMENT

Project Personnel

3.01 The VTB of the MOL was the executing agency of the project. The Director General of VTB, as the Project Director, was responsible for administration, financial control, and liaison with the Bank. For smooth implementation of the project, the Project Implementation Unit maintained the 29 staff already trained to implement the Third Education Project. The composition

was: 1 project director, 7 project assistants, 1 civil engineer, 1 architect, 5 office staff, 5 administrative staff and 9 office assistants. Regular VTB staff provided additional support.

Project Organization

3.02 At the time of loan agreement in 1977, the VTB of MOL had five divisions: Training Planning, Public Training, In-plant Training, Technical Deliberation and Skill Testing. The VTB was reorganized in 1982, and now consists of four divisions: Skill Testing, In-plant Training, Public Training and Training Policy (Annex 2). The VTB is also responsible to the Government for the operations of several boards and decentralized agencies: a Deliberation Committee for Vocational Training, Deliberation Committee for Technical Qualification, and an external body, the Korea Vocational Training and Management Agency (KVTMA).

Civil Works

Locations

3.03 The VTI locations were decided after considering and analyzing factors such as the balanced development across regions, regional requirements for manpower, plans for recruitment of instructors, and regional and local plans for industrial development. Consideration was also given not to locate new VTIs near the already existing 16 VTIs (including 7 assisted under the Third Education Project, 5 by the Asian Development Bank and 4 by the Korean-German International Cooperation). Of the eight locations originally designated by the Government and accepted by the Bank at appraisal, four locations were subsequently changed, largely because of completion of new plans for regional development of industry (see para. 3.07).

Design

3.04 The standard construction design, structure and size of VTIs were similar to those for the Third Education Project. However, each had a capacity to train 450 trainees compared to 360 trainees under the Third Education Project.

3.05 The layout of VTIs consists of several units. The main characteristics of the design (similar to that of the Third Education Project) are as follows:

- (a) Main Building. Rooms for administrative and managerial staffs, library, classrooms for teaching and audio-visual room.
- (b) Dormitory. Bedrooms with individual furniture, recreation room and small shower room.
- (c) Shower Room. One-story building with shower capacity for 60 persons.

- (d) Workshop. Space sufficient for 90 trainees to practice in each trade provided with lighting, ventilation and safety facilities.
- (e) Restaurant. Kitchen and restaurant provided with boiler room in the basement.
- (f) Others. Transformer station, guard room, oil tank, warehouse, etc.

Construction

3.06 The preparation and processing of civil works were well done because of experience gained during the implementation of the Third Education Project. Each institute director was responsible for following the established procedure from selection of site to completion. The land space, building space and construction duration for training facilities and instructor apartments at the Institutes are attached as Annex 3.

Changes

3.07 The following designation of new locations was made during implementation (see para. 3.03):

- (a) the location of Naju VTI was changed to Mokpo as Naju is a small city and a VTI already existed in nearby Kwangju;
- (b) the location of Nonsan VTI was changed to Iri on the grounds of inadequate industrial activity in Nonsan and Iri had an existing and expanding industrial complex;
- (c) the location of Chungmu VTI was changed to Yeongju in Kyungsangbukdo Province because of existing VTIs in the vicinity of Jinju and Changwon, and higher priority eventually assigned to industrial employment in the province;
- (d) the location of Pyeongtaek VTI was changed to Choongju because of land acquisition problems; and
- (e) the planned dormitory capacity to accommodate 50% of the trainees was expanded to 100%, as almost all the trainees were residential students who came from remote areas, and also to maximize the training effect through student counselling and guidance services in the afternoons and evenings (para. 4.03, footnote 2).

Equipment Procurement

Procurement Plan

3.08 The training equipment lists were first prepared in 1977 with cooperation of the German Advisory Team (GAT) taking into account factors such as curriculum, training plan, training trades, number of trainees and instructors, workshop space, equipment characteristics, possibility for international competitive bidding and budget for equipment.

3.09 The "Guidelines for Procurement under World Bank Loans and IDA Credits" were followed for procurement of training equipment. Preparation of equipment lists, bidding documents and contracts were fully approved by the Bank.

3.10 The technical evaluation of bidding documents was made carefully and objectively with assistance from GAT, and similar evaluations were separately made by the Office of Supply, Republic of Korea (OSROK). The equipment procurement was handled through OSROK following the Bank Guidelines. Details are attached as Annex 4.

3.11 The final procurement of equipment for the CVTI of about US\$300,000, was contracted on April 13, 1983. The delivery was completed by the end of 1983.

Training Plan

3.12 The training plans were modified annually to adjust to the changing requirements of the labor force. The Government based the plans on a thorough analysis of the following factors: priority trades, condition of equipment, training facilities, number of staff, training targets, skill tests, trainees' level, age, number and budget. The training duration in a one-year course was more than 1,800 hours per trainee per year with a practical work content of about 75%.

3.13 The training trades were selected after considering the demands of industries and the VTI's training capacity. Priority was given to heavy industry in support of the trade export strategy. As a result, the selection was mainly in machine trades. Also, with many construction companies receiving overseas construction contracts, there was an upsurge in demand for skilled construction workers. To meet this demand, the VTIs at Mokpo (with 180 trainee capacity) and Kimcheon (with 90 trainee capacity) specialized in construction and steel structures, and tile setting and brick laying trades. The objective of these VTIs was to train multi-skilled construction workers. The trades and capacity of eight VTIs are attached as Annex 5.

Technical Assistance

3.14 Technical assistance of US\$0.3 million included in the project was not utilized because the MOL continued with technical assistance provided under a bilateral agreement with the Federal Republic of Germany for the Third Education Project. As GAT had been assisting MOL since April 1976 (first in connection with the Third Education Project and then the Fourth Education Project), it is not possible to allocate how much time was spent on each project. The personnel details and total service time are attached as Annex 6.

3.15 The duties of GAT were to: (a) advise and cooperate with the Director-General of VTB and staff engaged on the project; (b) review plans and construction drawings of VTIs and assist in supervision; (c) prepare equipment lists and review bids; (d) review training and skill test standards; (e) assist individual VTIs with seminars, demonstrations and workshop guidance;

(f) assist in and coordinate overseas training; and (g) any other advisory matters.

3.16 The GATs' effective technical advice contributed a great deal toward Korea's vocational education. A most effective contribution was the overseas training of instructors in Germany.

Convenants

3.17 All the agreements were fulfilled by the Government, generally within a reasonable length of time. The covenants were well supported by the Government and contributed to the success of the project. Details are shown in Annex 7.

Bank Performance

3.18 The Bank's accredited representatives visited Korea periodically (11 supervision missions) to ascertain the project progress and they generally expressed satisfaction with project accomplishments. For example, the Bank staff noted that the Government developed and implemented a plan to overcome projected shortages of instructors. Also the Bank staff reported that the Government collected systematically and presented for regular review by the Bank data on employment status and skill attainment of graduates. Moreover, the Bank staff visits to project institutions uniformly revealed well-organized training courses operated at a high level of effectiveness with well-trained instructors and disciplined students. The Korean Government was also satisfied with the advice and assistance provided by Bank missions.

Closing Date

3.19 The closing date of June 30, 1982 was postponed by a year after consultation with the Bank. The reason for closing date extension was mainly due to delay in equipment procurement for Yeongju and Choongju VTIs, caused by slightly slower construction schedule and additional planning to determine specific courses for these VTIs.

IV. PROJECT COSTS

Appraisal Estimate

4.01 The appraisal report, dated June 17, 1977, contained an estimated total project cost of US\$41.3 million including a foreign exchange component of US\$23.0 million or 55.7% of the total. Details of summary project costs are attached as Annex 8.

Financial Plan

4.02 The financial plan proposed by the Government, as shown in the appraisal report and endorsed by the Bank in the loan agreement, provided for Bank assistance of a total of US\$23.0 million to finance part of the costs of civil works, architectural and engineering consultants and furniture (30%);

directly imported equipment (100%) and other local procurement (70%); and technical assistance (100%) of foreign and local expenditures. The part financed from the government budget would amount to the equivalent of US\$18.3 million.

Actual Costs

4.03 After completion the total cost of the project amounted to US\$55.1 million representing a cost overrun of 33% over the appraisal estimate, including contingencies. The table below presents a comparative analysis between appraisal estimates and the actual costs by category of expenditure.

PROJECT COSTS (ACTUAL) (in US\$ '000)

	<u>Appraisal estimates</u>			<u>Actual costs</u>		
	<u>Local</u>	<u>Foreign</u>	<u>Total</u>	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
Civil works	12,035	3,555	15,590			
Contingencies	4,205	1,255	5,460			
Subtotal	<u>16,240</u>	<u>4,810</u>	<u>21,050</u>	<u>26,016</u>	<u>3,188</u>	<u>29,204</u>
Equipment	1,540	13,890	15,430			
Contingencies	450	4,030	4,480			
Subtotal	<u>1,990</u>	<u>17,920</u>	<u>19,910</u>	<u>6,262</u>	<u>19,628</u>	<u>25,890</u>
Technical assistance	60	240	300			
Contingencies	20	80	100			
Subtotal	<u>80</u>	<u>320</u>	<u>400</u>			
<u>Total</u>	<u>18,310</u>	<u>23,050</u>	<u>41,360</u>	<u>32,278</u>	<u>22,816</u>	<u>55,094</u>

The part financed by government funds - the equivalent of US\$32.3 million - exceeds the original estimate of US\$18.3 million (para. 4.02) As such, the government contribution represented nearly 59% of the total cost.^{2/}

4.04 The main reasons for the cost overrun (33%) are as follows:

- (a) modest increase of building areas; and
- (b) unexpected, and unprecedented, high rates of inflation in both foreign and domestic prices caused by the second OPEC crisis.

4.05 Construction. The provincial authorities assisted the project by providing 360,000 sq m land free to the new VTIs. Hence, the land acquisition cost is not included in the project costs. However, the land purchased by MOL for instructors' apartments is included in the project. The domestic budget secured for construction work ran short because of high inflation, and in 1980 the construction work was carried forward to the following year when shortage of funds persisted. However, the overall project construction was completed satisfactorily without any serious setbacks to the original schedule, and the quality of construction was good.

4.06 Equipment. Equipment procurement was well executed. The total cost for equipment amounted to US\$25.9 million (local cost of US\$6.3 million and foreign cost of US\$19.6 million). There were no budgetary problems for equipment because the original loan allocation of US\$13.9 million was revised upward to US\$19.5 million. The equipment was procured under five international bidding exercises. However, a balance of US\$400,000 still remained in the loan fund when the VTIs were fully equipped and, after consultation with the Bank, it was decided to procure equipment for the CVTI. This bidding exercise was contracted on April 19, 1983 for about US\$200,000.

4.07 Technical Assistance. The amount of US\$300,000 initially allocated for technical assistance was not used as the GAT continued to provide expert services after completion of the Third Education Project. This amount was re-allocated for equipment procurement.

4.08 Recurrent Costs. The recurrent costs for the 8 VTIs assisted under this project are substantially the same as those for the entire system of VTIs. These institutions shared an average recurrent cost per student in 1981 of US\$2,000. This is an acceptable standard of performance.

^{2/} In fact, the government contribution is even higher because MOL decided to increase the number of boarders in the VTIs to 100% of the enrollment instead of 50% as specified in the loan agreement, and also to provide instructors' apartments (40) in each VTI. This additional program has been entirely financed by government funds without Bank assistance.

Disbursements

4.09 The project was expected to be fully disbursed by June 30, 1982, and project implementation was also expected to finish before the closing date of June 30, 1982. Owing to delays caused by late completion of construction works and delays in ordering equipment, the closing date was postponed by a year to June 30, 1983 after consultations with MOF and the Bank.

4.10 As of March 1984, the total disbursed amount was approximately US\$22.8 million. The unutilized balance of US\$214,265.12 was cancelled on March 24, 1984. On this record the disbursement performance of the project as compared with the disbursement profile of East Asia and Pacific Regional Education Projects was initially slow but accelerated after two years. See Annex 9 (attached).

V. MAJOR INSTITUTIONAL CHANGES DURING THE PROJECT

5.01 Two major changes which occurred during the life of the Fourth Education Project were the establishment of: (a) Changwon Industrial Masters' College; and (b) Korea Vocational Training and Management Agency. Although not financed under the project, these institutional changes represent a significant effort on the part of Government to continue to improve the management and the quality of vocational training. Their development was a consequence of the program for expansion of vocational training financed under this project.

Establishment of Changwon Industrial Masters' College (CIMC)

5.02 The Changwon Industrial Masters' College was established in November 1977 under the Ministry of Science and Technology (MOST). It was set up to train master craftsmen with comprehensive skills and competence, who would be in charge of training and supervision of skilled workers, safety management, effective utilization of equipment, improvement of working conditions and production work. In March 1982, the college was placed under the Korea Vocational Training and Management Agency (KVIMA) as a subordinate organization. The development of this College could partly be attributed to the Bank's continued effort in vocational training in Korea, because this institutional development followed on the establishment of some 24 VTIs. The Master's College became the apex of this system.

5.03 Although the creation of CIMC does not have a direct effect on the Fourth Education Project, it has had an indirect effect in that it provides VTI graduates further opportunity for development of their technical skills.

The Korea Vocational Training and Management Agency (KVIMA)

5.04 To train and manage skilled workers effectively, it was deemed proper by the Government to establish outside of an operating ministry an organization that had comprehensive control over skilled manpower training and

allocation to match the industrial demand. KVTMA was established on March 18, 1982. Its charter proposed to contribute to the promotion of national welfare and national economic development through the efficient management of vocational training and technical qualification testing.

5.05 The KVTMA functions are to establish and operate vocational training facilities, implement and guide vocational training, train managers of vocational training institutions, implement a national technical qualification system, guide employment of skilled manpower, perform surveys and research in support of vocational training and technical qualification testing, develop and distribute textbooks, implement and supervise national and international vocational training competitions and promote international cooperation in vocational training. The KVTMA organization is attached as Annex 10.

5.06 The most important achievement of KVTMA was to improve the responsiveness of the training system to the requirements of industry. Before the establishment of KVTMA such effective management was not possible because different central agencies of Government were in charge of training, i.e., MOE, MOL and MOST, among others. The other important outcome of KVTMA is economy in budget and effective management of personnel. This is a direct result of consolidation.

VI. OPERATIONAL OUTCOMES AND CONCLUSIONS

Overview

6.01 The establishment of eight new VTIs and the assistance for the CVTI under the Fourth Education Project had a great influence on the Korean vocational education system. Despite the continuous quantitative growth achieved with the promulgation of the Vocational Training Law of 1976, the Fourth Education Project was the turning point which resulted in not only a quantitative growth but a substantial qualitative improvement. It also led to a maturity of the vocational training system in Korea, and to two important steps in institutional development, namely, CDMC and KVTMA.

6.02 The new VTIs are now operated under the supervision of KVTMA. The establishment of KVTMA during the implementation of the Fourth Education Project uncoupled the VTIs from direct government management and ensured smooth operation of the VTIs as well as high quality leadership in management of the VTIs.

6.03 In 1979, the first trainees were recruited at Weonju and Pusan VTIs through competitive testing. The places/applicants ratio at 1:1.55 (capacity 900 places against 1,395 applicants) shows high social demand for these courses. With training capacity of 7,200 places during the years 1980-82 and with the capacity fully utilized, 6,242 persons graduated from regular courses, indicating a high internal efficiency of 87%. During the same period, 5,735 graduates passed the skill test of Craftsman Class II and the 92% success rate is a result of effective training in the VTIs. The external productivity with 5,196 graduates, or about 90% obtaining jobs in industry in their respective fields also very high. The table showing completion ratio of

entrance examination, status of graduates, skill tests and employment by VTIs is attached as Annex 11.

6.04 Each VTI has evening courses to maximize the use of training facilities. Most of the trainees in evening courses apply to skill test grades at the level of craftsman and virtually 100% obtain a certificate for that grade. Intensive utilization of facilities through evening courses is one of the most important achievements of this project.

6.05 The CVTI is responsible for training of all VTI instructors. The CVTI output was adequate to staff all the VTIs in Korea. The quality of training was high. Staff of VTIs were recruited at the time of opening of training courses. Each instructor is responsible for 10 trainees with substantial emphasis on individualized instruction. The number of instructors and staff at the end of 1982 was adequate as indicated in Annex 12 (attached) and also because of reasonable student/instructor ratio. The quality of training was satisfactory as evidenced by the high passing rate in skill tests and comparative success in international skill competitions.

Bank Contribution

6.06 The timely Bank loan contributed significantly to the development of a larger and more effective vocational training system in Korea. The report of the Bank's identification mission recognized the need for and feasibility of establishing VTIs in Korea. The quick and cooperative actions taken by the Bank during project implementation enabled the project to progress smoothly.

6.07 The Bank contributed to an efficient design for VTIs of six groups per stream, allowing for an efficient rate of utilization. The Bank staff also assisted in program selection for the VTIs. In addition, the Bank staff helped develop the monitoring system for graduates.

6.08 There was no preparation mission for this project (para. 2.14) with identification in May 1976 and appraisal in September 1976. The identification mission assisted with the project preparation. This shows that for repeater projects, processing steps could be lessened and the Bank's resources used for achieving the lending program could be reduced.

Government Contribution

6.09 During the implementation period, the MOL made every effort to observe the loan agreement and follow the Bank guidelines. Deviations, if any, were discussed and agreed upon with the Bank. Problems caused in relation to withdrawal of funds, amendments to letters of credit, approval of equipment lists, approval of contracts, approval of reallocation of funds, approval of changes in location and trades at VTIs were settled satisfactorily during the Bank supervision missions.

6.10 The project scale and plan as identified by the Bank on size and location of eight VTIs was satisfactory to the MOL. One problem was the failure to locate some of the VTIs correctly during appraisal, thus requiring changes later on (para. 3.07), but the adverse effect was minimal.

6.11 The unexpected cost overrun, both local and foreign, was the main problem. However, the Korean Government met the cost overrun.

6.12 The Government contributed to the expansion of trainees' dormitories and instructors' apartments, and these changes were evaluated satisfactorily by the Bank.

KOREA

FOURTH EDUCATION PROJECT (LOAN 1474-KO)

PROJECT COMPLETION REPORT

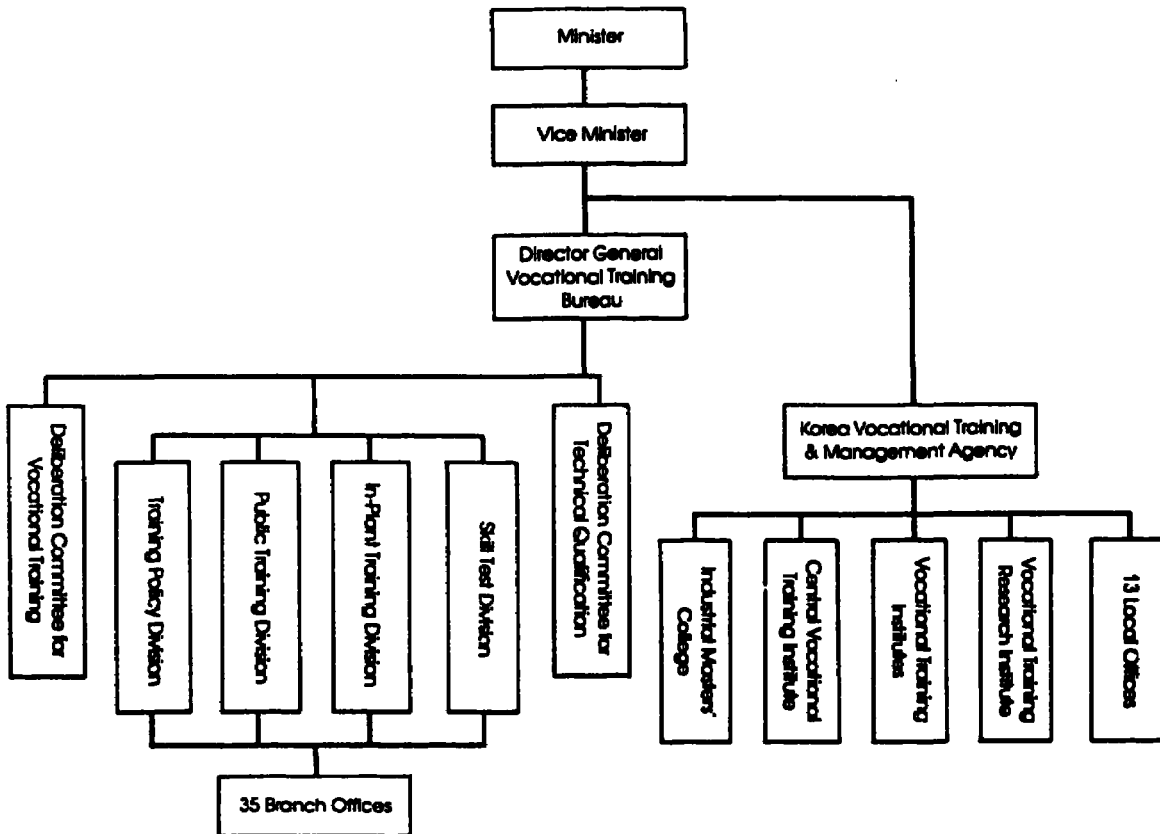
Requirements and Supply Estimates for Technical Manpower,
By Major Categories, 1977-81 (in Thousands)

	Requirements	Supply	Surplus (+)/ Deficit (-)
Scientists/Engineers	54	60	+6
Technicians	65	57	-8
Skilled workers	843	529	-314
("Craftsmen")	(469)	(449)	(-20)
("Operatives")	(374)	(80)	(-294)

Note: Estimates were limited to requirements of heavy and chemical industries and to relevant sources of supply.

Source: Ministry of Science and Technology, Korean Development Institute and Mission Estimates.

KOREA
FOURTH EDUCATION PROJECT (LOAN 1974-KO)
Project Completion Report
Organization Structure of Vocational Training Bureau



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FOURTH EDUCATION PROJECT (LOAN 1474-KO)

PROJECT COMPLETION REPORT

Training Facilities and Instructor Apartments

Training Facilities

(in sq m)

<u>VTIs</u>	<u>Land area</u>	<u>Building areas</u>	<u>Construction duration</u>
Wonju	40,400	12,400	78.11-79.09
Busan	55,100	12,200	78.11-79.09
Hongseong	41,700	13,100	79.06-81.09
Iri	43,300	12,300	79.06-81.09
Mokpo	41,100	12,300	79.06-81.09
Kimcheon	41,000	12,700	79.04-81.11
Yeongju	50,000	12,400	80.08-82.09
Choongju	48,000	12,400	80.08-82.09

Instructors' Apartments

(in sq m)

<u>VTIs</u>	<u>Land area</u>	<u>Building areas</u>	<u>No. of houses</u>	<u>Construction duration</u>
Wonju	3,700	2,700	46	81.06-82.11
Busan	2,900	2,800	46	80.07-81.06
Hongseong	4,900	2,500	46	80.07-82.10
Iri	4,600	2,400	40	80.08-81.09
Mokpo	2,300	2,500	48	81.03-81.09
Kimcheon	4,300	2,400	40	80.09-81.07
Yeongju	3,400	2,500	44	82.03-82.09
Choongju	5,800	2,500	45	82.03-82.09

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FOURTH EDUCATION PROJECT (LOAN 1474-KO)

PROJECT COMPLETION REPORT

Equipment Procurement

	Kinds	Sets	Amount	Delivery duration
Weonju	515	6,900	2,100,000	79.04-79.12
Busan	462	7,500	2,500,000	79.04-79.12
Hongseong	415	6,800	2,500,000	80.05-80.12
Iri	412	6,800	2,500,000	80.05-80.12
Mokpo	401	6,600	1,800,000	80.05-80.12
Kimcheon	414	6,600	2,100,000	80.05-80.12
Yeongju	597	6,400	2,200,000	81.06-82.12
Choongju	535	6,600	2,300,000	81.06-82.12
C.V.T.I.	231	5,800	1,400,000	79.04-79.12
				83.05-83.11

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FOURTH EDUCATION PROJECT (LOAN 1474-KO)

PROJECT COMPLETION REPORT

Trades and Capacity of 8 VTIs

	No. of Trainees	Turn- ing	Machine fitting	Weld- ing	Ind. pipe fitting	Plumb- ing	Mill- ing	Elec- tric fitting	Const- ruct- ion
<u>Total</u>	<u>3,600</u>	<u>720</u>	<u>720</u>	<u>630</u>	<u>270</u>	<u>360</u>	<u>90</u>	<u>540</u>	<u>270</u>
Wonju	450	90	90	90	-	90		90	-
Busan	450	90	90	90	-	-	90	90	-
Hongseong	450	90	90	90	90	-	-	90	-
Kimcheon	450	90	90	90	-	90	-	-	90
Iri	450	90	90	90	90	-	-	90	-
Mokpo	450	90	90	-	-	90	-	-	180
Yeongju	450	90	90	90	-	90	-	90	-
Choongju	450	90	90	90	90	-	-	90	-

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FOURTH EDUCATION PROJECT (LOAN 1474-KO)

PROJECT COMPLETION REPORT

Technical Assistance /a

Field	Service Period	Approx. Number of Man Year
Chief	76.08-80.12	4.4
Welding, Plumbing	76.04-82.06	6.2
Machine	76.10-80.05	3.7
Electric, Electronic	78.10-82.06	3.8
Electronic	76.08-78.08	2.1
Metal working	78.09-79.09	1.1
Construction	79.10-79.11	.1
Electric	80.03-82.11	1.8
Machine	81.04-Present	3.2
Skill test	82.02-Present	2.3
Chief	81.09-Present	2.8
Total		31.5

/a Provided by the Federal Republic of Germany under bilateral assistance.

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FOURTH EDUCATION PROJECT (LOAN 1474-KO)

PROJECT COMPLETION REPORT

Status of Special Covenants

Loan Agreement reference	Appraisal report reference	Covenant requirement	Deadline date	Remarks
5.05(b)	5.11	Acquire land and land rights as needed by the Project and furnish to the Bank satisfactory evidence of such acquisition or land rights.	At least three months before the planned construction of such sites.	All acquired. Fulfilled.
4.02(b)	-	Furnish to the Bank audited project accounts and credit report.	5 months after each fiscal year.	Fulfilled. Received report in July 1983.
3.09(a)	5.10	Establish a staff expansion program for VTB, acceptable to the Bank to become effective before December 31, 1977.	October 31, 1977.	Fulfilled. Organizational chart and staffing of VTB was sent to the Bank on December 7, 1977.
3.09(b)	-	Exchange views with the Bank from time to time, with regard to any proposed staff increases required by VTB.	-	No staff increase was required.
3.08(a)	4.08 4.10	Establish a plan acceptable to the Bank to eliminate present, and possible future shortages of VTI instructors and instructor-trainers.	December 31, 1977.	Adequate positions established; number of instructors is reasonable for the number of trainees. The NCVTI produces adequate numbers of VTI instructors; but plan, although not yet submitted to Bank, is not necessary anymore.
3.08(b)	-	Implement such plan in accordance with a schedule acceptable to the Bank.	-	See above.
3.07	4.08	Finance out of its own resources the construction of the houses for the teaching staff of the VTIs referred to in Part A of the Project.	-	Fulfilled.
3.06(a)	4.04	Establish a performance monitoring system acceptable to the Bank for Project Institution, to collect information on the employment status and skill attainment of the graduates of such institutions.	December 31, 1978.	Fulfilled.
3.06(b)	-	Furnish annually to the Bank a summary analysis of such information for five consecutive years.	-	Under implementation.

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FOURTH EDUCATION PROJECT (LOAN 1474-KO)
PROJECT COMPLETION REPORT

ANNEX B

Comparative Analysis of Originally Estimated Costs and Actual Costs
(in Million Korean Won as of September 1983) /a

1 US\$ = 750 W

Institutions	Construction and Site Development				Furniture				Equipment /c				Professional Services /a				Technical assistance & technical services				Total costs				Proj. cost
	Appraisal estimate		Actual/b costs	Diff. 3/2+14	Appraisal estimate		Actual costs/d	Diff. 7/6	Appraisal estimate		Actual costs	Diff. 11/10+6	Appraisal estimate		Actual costs	Diff. 15/14	Appraisal estimate		Actual costs	Diff. 19/18	Appraisal estimate		Actual costs	Diff. 23/22	
	Exclud. conting.	Includ. conting.			Exclud. conting.	Includ. conting.			Exclud. conting.	Includ. conting.			Exclud. conting.	Includ. conting.			Exclud. conting.	Includ. conting.			Exclud. conting.	Includ. conting.			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
V101 Hongseong	1,264	1,708	2,837	+57	124	164			1,201	1,549	2,361	+38	77	102	-	-	-	-	-	-	2,646	3,525	5,198	+47	
V102 Chungmu (Geoje)/Yeongju	1,262	1,710	3,368	+86	124	167			1,217	1,570	2,543	+46	78	103	-	-	-	-	-	-	2,681	3,550	5,911	+67	
V103 Kancheon	1,264	1,708	2,913	+61	124	164			1,217	1,570	2,062	+19	77	102	-	-	-	-	-	-	2,682	3,546	4,975	+40	
V104 Sasang	1,263	1,711	2,268	+24	124	167			2,092	2,700	2,339	-18	78	103	-	-	-	-	-	-	3,537	4,681	4,607	-2	
V105 Naju/Hokpo	1,263	1,708	2,920	+61	124	164			1,217	1,570	1,868	+8	77	103	-	-	-	-	-	-	2,681	3,547	4,788	+35	
V106 Nonsan/Iri	1,263	1,709	1,948	+8	124	168			1,201	1,548	2,610	+52	78	103	-	-	-	-	-	-	2,646	3,528	4,559	+29	
V107 Pyeongtaek (Suwon)/Cheongju	1,264	1,708	3,428	+89	124	165			1,217	1,570	2,655	+53	77	103	-	-	-	-	-	-	2,682	3,546	6,083	+72	
V108 Wyeonju	1,263	1,709	2,242	+24	124	168			1,201	1,549	1,892	+10	78	103	-	-	-	-	-	-	2,646	3,529	4,134	+17	
Subtotal	10,106	13,671	21,903	+51	992	1,333			10,563	13,626	18,352	+23	620	822	-	-	-	-	-	-	22,281	29,432	40,235	+37	
V101 Central Vocational Training Institute (CVTI)	-	-	-	-	-	-			1,039	1,339	1,074	-20	-	-	-	-	-	-	-	-	1,039	1,339	1,074	-20	
Technical assistance specialists	-	-	-	-	-	-			-	-	-	-	-	-	-	-	225	302	-	-	225	302	0	-	
Total Project	10,106	13,671	21,903	+51	992	1,333			11,602	14,965	19,426	+19	620	822	-	-	225	302	-	-	23,545	31,093	41,329	+33	

/a Based on Won 750 = US\$1 exchange rate.

/b Figures adjusted because of rounding.

/c Actual Won costs derived by using Won 750 : US\$1 exchange rate.

/d Actual equipment costs include furniture costs.

/e Professional services included under Construction and Site Development for % difference.

ANNEX B

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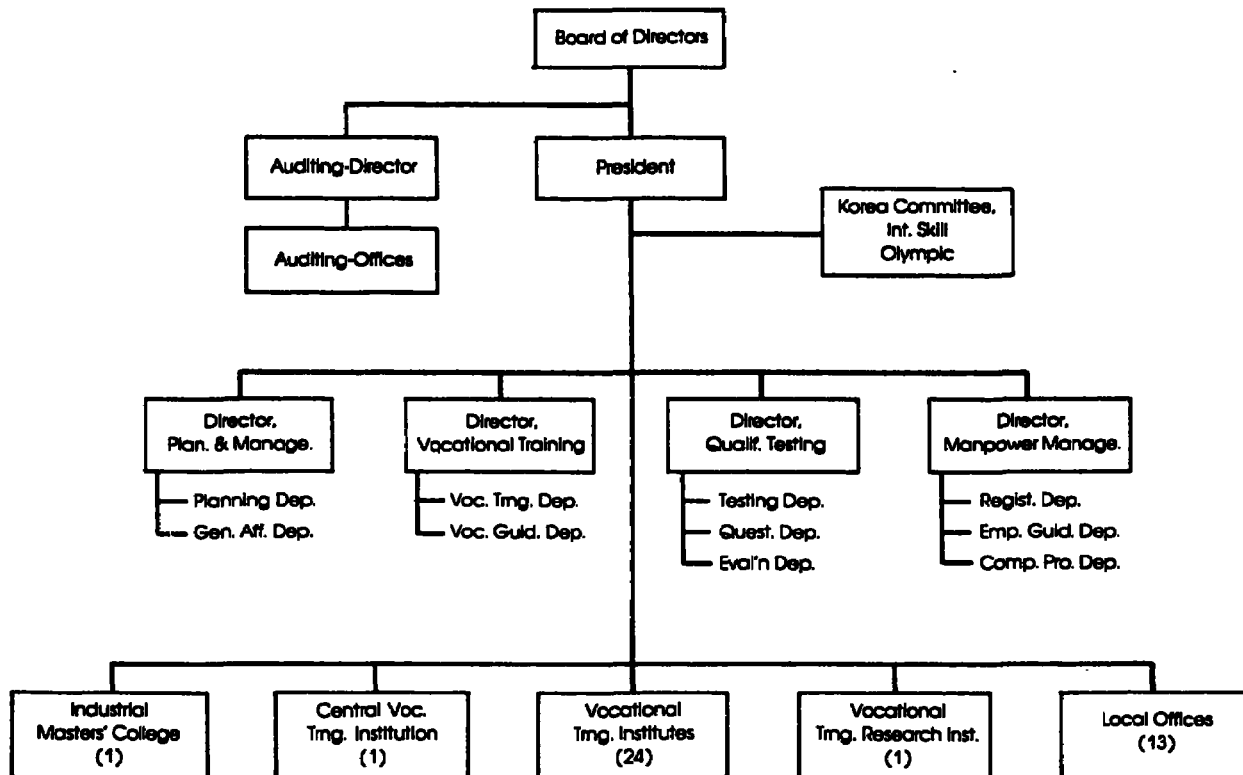
FOURTH EDUCATION PROJECT (LOAN 1474-KO)

PROJECT COMPLETION REPORT

Disbursements by Semester

IBRD/IDA fiscal year & semester	Actual total disburse- ments (1)	Appraisal estimate (2)	Actual disburse- ments as a % of appraisal	Disbursement Profile of AEP Regional Education Projects %
<u>1978</u>				
1st	0.0	0.0		1
2nd	0.0	0.1	0%	3
<u>1979</u>				
1st	0.0	1.3	%	6
2nd	1.5	3.5	43%	10
<u>1980</u>				
1st	6.8	6.5	105%	16
2nd	8.5	11.5	74%	23
<u>1981</u>				
1st	16.2	17.5	93%	31
2nd	16.8	21.0	80%	40
<u>1982</u>				
1st	20.1	23.0	87%	49
2nd	21.7	23.0	94%	57
<u>1983</u>				
1st	22.4	23.0	97%	66
2nd	22.5	23.0	98%	
<u>1984</u>				
1st	22.8		99%	
<u>Closing date</u>	6/30/83	6/30/82		

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FOURTH EDUCATION PROJECT (LOAN 1474-KO)
Project Completion Report
Organization Structure of Korea Vocational Training and Management Agency



KOREA
FOURTH EDUCATION PROJECT (LOAN 1474-KO)

PROJECT COMPLETION REPORT

Craftsman Training in VTIs (1979-82)

1. Full-Time Courses

	Total	Ueongju	Busan	Hong seong	Iri	Nokpo	Kim- cheon	Gwong- ju	Yeong- ju
	<u>Total</u>								
Enrollment	7,200	1,350	1,350	900	900	900	900	450	450
Completion rate of entrance exam	2.2:1	1.6:1	1.7:1	2.6:1	2.4:1	1.4:1	1.7:1	2.8:1	4:1
Graduate	6,242	1,209	1,216	756	760	694	722	441	444
<u>Skill Test</u>									
Passed	5,735	1,082	1,121	709	696	634	641	422	430
Rate	91.9	89.5	92.2	73.8	91.6	91.4	88.8	95.7	96.8
<u>Employment</u>									
Employment	5,196	1,008	910	694	632	643	621	374	314
Rate	83.2	83.4	74.8	91.8	83.2	92.7	86	84.8	70.7
	<u>1980, 79.9-80.8</u>								
Enrollment	900	450	450						
Completion rate of entrance exam	1.6:1	1.3:1	1.8:1						
Graduate	795	382	413						
<u>Skill Test</u>									
Passed	718	329	389						
Rate	90.3	86.1	94.2						
<u>Employment</u>									
Employment	576	278	298						
Rate	72.5	72.8	72.2						
	<u>1981, 80.9-81.8</u>								
Enrollment	2,700	450	450	450	450	450	450		
Completion rate of entrance exam	1.8:1	1.5:1	1.6:1	1.9:1	2.2:1	1.4:1	1.9:1		
Graduate	2,185	402	387	350	321	358	367		
<u>Skill Test</u>									
Passed	1,873	340	332	315	289	305	292		
Rate	85.7	84.6	85.8	90	90	85.2	79.6		
<u>Employment</u>									
Employment	1,740	317	257	312	249	321	284		
Rate	79.6	78.9	66.4	89.1	77.6	89.7	77.4		
	<u>1982, 81.9-82.8</u>								
Enrollment	2,700	450	450	450	450	450	450		
Completion rate of entrance exam	2:1	1.7:1	1.8:1	3.3:1	2.5:1	1.4:1	1.6:1		
Graduate	2,377	425	416	406	439	336	355		
<u>Skill Test</u>									
Passed	2,292	413	400	394	407	329	349		
Rate	96.4	97.2	86.1	97	93	98	98		
<u>Employment</u>									
Employment	2,192	413	355	382	383	322	337		
Rate	92.2	97.2	98.6	94	87	97	95		
	<u>1983, 82.3-83.2</u>								
Enrollment	900						450	450	
Completion rate of entrance exam	3.4:1						2.8:1	4:1	
Graduate	885						441	444	
<u>Skill Test</u>									
Passed	852						422	439	
Rate	96.3						95.7	96.8	
<u>Employment</u>									
Employment	688						374	314	
Rate	77.7						84.8	70.7	

2. Evening Courses

	Total	1980	1981	1982
<u>Total</u>	<u>2,355</u>	<u>247</u>	<u>772</u>	<u>1,336</u>
Weonju	448	117	164	167
Busan	497	130	125	242
Hongseong	122		62	60
Iri	442		162	280
Mokpo	321		145	176
Kimcheon	279		114	165
Yeongju	119			119
Choongju	127			127

KOREA

FOURTH EDUCATION PROJECT (LOAN 1474-KO)

PROJECT COMPLETION REPORT

Status of Staff at the End of 1982

VTIs		Personnel	
		Capacity	Present
	<u>Total</u>	<u>646</u>	<u>627</u>
<u>Weonju:</u>	Office workers	6	6
	Employees	29	29
	Instructors	45	44
<u>Busan:</u>	Office workers	6	5
	Employees	29	29
	Instructors	45	44
<u>Hongseong:</u>	Office workers	7	7
	Employees	29	28
	Instructors	45	44
<u>Iri:</u>	Office workers	7	7
	Employees	29	29
	Instructors	45	43
<u>Mokpo:</u>	Office workers	7	7
	Employees	29	29
	Instructors	45	41
<u>Kimcheon:</u>	Office workers	7	7
	Employees	29	29
	Instructors	45	42
<u>Yeonju:</u>	Office workers	7	7
	Employees	29	29
	Instructors	43	42
<u>Yeonju:</u>	Office workers	7	7
	Employees	31	31
	Instructors	45	42

